

WANNI et al. - 10/848,903
Attorney Docket: P2003J053

REMARKS

Claims 1-23 are currently pending. By this Amendment, the specification, the Abstract of the Disclosure and claims 1, 7, 8, and 10 are amended, and claims 21-23 are newly added. Paragraph [0017] is amended to correct a minor informality such that the dimensions are consistent. Claim 21 contains subject matter originally found in claim 8. Support for claims 22 and 23 may be found, for example, in paragraph [0017]. No new matter is added. Reconsideration in view of the above-outlined amendments and the following remarks is respectfully requested.

Applicants filed an Information Disclosure Statement on June 14, 2005 identifying four references for consideration by the Examiner. Applicants respectfully request acknowledgement of the consideration of these references in the next official communication from the Patent Office.

In response to the objection to the length of the Abstract of the Disclosure, the Abstract of the Disclosure is revised to reduce its overall length and is now less than 150 words. Reconsideration and withdrawal of the objection to the Abstract of the Disclosure are respectfully requested.

Applicants acknowledge the indication of allowable subject matter in claims 4, 7-9, and 14-19. In response, claim 7 is rewritten in independent form. Claims 8 and 9 and newly added claim 21 depend from claim 7. Applicants respectfully submit that claims 7, 8, 9 and 21 are allowable over the prior art cited of record and in condition for allowance. Claim 4 depends from claim 1 and is condition for allowance for the reasons discussed below. Claims 14-19 depend from claim 10 and are in condition for allowance for the reasons discussed below.

Claims 1, 6, 10, and 12 are rejected under 35 U.S.C. § 102(b) over U.S. Patent No. 4,860,697 to Malaval. This rejection is respectfully traversed.

Malaval discloses an anti-vibratory bar for use in a steam generator of a pressurized water nuclear reactor. The anti-vibratory bar includes a pair of folded metal wedging members 12 and 13. The members 12 and 13 are positioned on opposing sides of a flat strip 14. A hollow sectional support 11 secure the members 12 and 13 against the strip 14. Portions 16 of the members 12 and 13 extend through openings in the support 11. The portions 16 come into contact with the tubes 4.

WANNI et al. - 10/848,903
Attorney Docket: P2003J053

By contrast, amended claim 1 is directed to a tube support device for a tube bundle having tubes arranged in rows with tube lanes separating the tube rows. The tube support device includes an elongated longitudinally extending strip having a pair of opposing faces and a plurality of successive transverse tube support rows located at successive longitudinal locations along the strip. Each tube support row having a plurality of raised, tube-engaging zones, wherein at least two of the plurality of raised, tube-engaging zones extend laterally outwards from one of the pair of opposing faces and at least one of the plurality of raised, tube-engaging zones extends laterally outwards from another one of the pair of opposing faces. The plurality of raised, tube-engaging zones extend laterally outwards to engage with tubes in the tube bundle on opposite sides of a tube lane.

Malaval fails to disclose, teach or suggest the subject matter of amended claim 1. Malaval does disclose the plurality of successive transverse tube support rows located at successive longitudinal locations along the strip. Malaval discloses a pair of metal members 12 and 13 having flat portions 16 that engage the tubes. One could argue that each flat portion 16 is a tube support row. The flat portions 16, however, do not contain a plurality of raised, tube-engaging zones. Furthermore, the flat portions 16 do not include at least two of the plurality of raised, tube-engaging zones extend laterally outwards from one of the pair of opposing faces and at least one of the plurality of raised, tube-engaging zones extends laterally outwards from another one of the pair of opposing faces. Accordingly, applicants respectfully submit that amended claim 1 is allowable over Malaval. Claims 2-6 and 22 depend from claim 1 and are allowable over Malaval for at least the same reasons.

By contrast, amended claim 10 is directed to a tube bundle device having a plurality of tubes arranged in rows with tube lanes separating the tube rows; and at least one tube support device. The plurality of the tubes being supported by the at least one tube support devices located in the tube lanes. Each tube support device includes an elongated longitudinally extending strip having a pair of opposing faces and a plurality of successive transverse tube support rows of a plurality of raised, tube-engaging zones located at successive longitudinal locations along the strip. At least two of the plurality of raised, tube-engaging zones extend laterally outwards from one of the pair of opposing

WANNI et al. - 10/848,903
Attorney Docket: P2003J053

faces and at least one of the plurality of raised, tube-engaging zones extends laterally outwards from another one of the pair of opposing faces. The plurality of raised, tube-engaging zones extend laterally outwards to engage with tubes in the tube bundle on opposite sides of a tube lane in the tube bundle.

Malaval also fails to disclose, teach or suggest the subject matter of amended claim 10. As discussed above in connection with claim 1, Malaval does not disclose the claimed tube-engaging zones. Malaval does not disclose at least two of the plurality of raised, tube-engaging zones that extend laterally outwards from one of the pair of opposing faces and at least one of the plurality of raised, tube-engaging zones that extends laterally outwards from another one of the pair of opposing faces. Accordingly, applicants respectfully submit that claim 10 is allowable over Malaval. Claims 11-20 and 23 depend from claim 10 and are allowable over Malaval for at least the same reasons.

Applicants respectfully submit that the claims are allowable over Malaval. Reconsideration and withdrawal of the rejection based upon Malaval are respectfully requested.

Claims 1, 3, 5, 6, 10, and 13 are rejected under 35 U.S.C. § 102(b) over U.S. Patent No. 5,072,786 to Wachter. This rejection is respectfully traversed.

Wachter discloses an anti-vibration support in a nuclear steam generator. The anti-vibration support has a plurality of support bars 31. A series of bow-shaped springs 36 and 43 are secured to opposite sides of the bars 31. The springs come into contact with the flow tubes 41 and 42.

Wachter fails to disclose, teach or suggest the subject matter of amended claims 1 and 10. Wachter fails to disclose the claimed plurality of raised, tube-engaging zones wherein at least two of the plurality of raised, tube-engaging zones extend laterally outwards from one of the pair of opposing faces and at least one of the plurality of raised, tube-engaging zones extends laterally outwards from another one of the pair of opposing faces. Instead, Wachter discloses opposing springs 36, 43. If one were to construe each pairing of springs 36 and 43 as a row, Wachter would fail to disclose, teach or suggest the claimed at least two of the plurality of raised, tube-engaging zones that extend laterally outwards from one of the pair of opposing faces and at least one of the plurality of raised, tube-engaging zones that extend laterally outwards from another one of the pair of

WANNI et al. - 10/848,903
Attorney Docket: P2003J053

opposing faces. Accordingly, applicants respectfully submit that claims 1 and 10 are allowable over Wachter. Claims 2-6 and 22 depend from claim 1 and claims 11-20 and 23 depend from claim 10 and are allowable over Wachter for at least the same reasons.

Applicants respectfully submit that the claims are allowable over Wachter. Reconsideration and withdrawal of the rejection based upon Wachter are respectfully requested.

Claims 1-3, 6, 10-13, and 20 are rejected under 35 U.S.C. § 102(b) over U.S. Patent No. 4,160,477 to Roffler. This rejection is respectfully traversed.

Roffler discloses a spacer grid formed of bent corrugated metal strips. Each metal strip contains opposing spring tabs 30. The springs tabs 30 function much like the springs 36 and 43 of Wachter.

Like Wachter, Roffler fails to disclose, teach or suggest the subject matter of amended claims 1 and 10. Roffler fails to disclose the claimed plurality of raised, tube-engaging zones wherein at least two of the plurality of raised, tube-engaging zones extend laterally outwards from one of the pair of opposing faces and at least one of the plurality of raised, tube-engaging zones extends laterally outwards from another one of the pair of opposing faces. Accordingly, applicants respectfully submit that claims 1 and 10 are allowable over Roffler. Claims 2-6 and 22 depend from claim 1 and claims 11-20 and 23 depend from claim 10 and are allowable over Roffler for at least the same reasons.

WANNI et al. - 10/848,903
Attorney Docket: P2003J053

Applicants respectfully submit that the claims are allowable over the prior art cited of record. Should any issues require further resolution, applicants respectfully request that the Examiner contact applicants' undersigned representative at the telephone number listed below. Applicants respectfully request the issuance of a Notice of Allowance for this application. Please charge any fees associated with the submission of this paper to Deposit Account Number 05-1330.

Respectfully Submitted,

EXXONMOBIL RESEARCH AND
ENGINEERING COMPANY



GLENN T. BARRETT

Registration No.: 38705

Telephone No. 703.846.4311

Fax No. 703.846.7799

Date: September 9, 2005

ExxonMobil Research & Engineering Company
Law Department
1545 Route 22 East
P.O. Box 900
Annandale, NJ 08801